

Listing of Claims:

Claim 1 (currently amended) A well or pipe repair product comprising a radially deployable flexible preform to form, after deploying, a tubular structure that is curable by polymerization after positioning it in a well or in a line and moulds to the shape thereof after curing, comprising in its constitution at least one resin of an unsaturated polyester resin synthesized from at least one saturated or unsaturated polyol, and tetrachlorophthalic anhydride, tetrabromophthalic anhydride, or hexachloro-
endomethylene tetrahydrophthalic anhydride, or a vinyl ester resin comprising in its chemical formula at least one reactive multiple bond that has a dynamic viscosity of less than about 2500 mPa.s at a temperature of about 20°C to about 70°C, and is capable of subsequent reaction with compounds comprising in their constitution at least one terminal reactive multiple bond or a reactive multiple bond positioned at one end or the other of the molecular chain and/or on a pendant group, wherein the preform contains at least one resin with a residual latent period, after storage at 22°C for a period of 20 days or more, of at least 3 hours at a temperature of about 10°C to about 90°C.

Claim 2 (previously cancelled)

Claim 3 (cancelled)

Claim 4 (cancelled)

Claim 5 (cancelled)

Claim 6 (previously presented) A well or pipe repair product according to claim 5, wherein the polyol used to synthesize the unsaturated polyester is a butylene glycol, a neopentyl glycol, a neopentyl glycol substituted by at least one halogen, a trimethylpentanediol, a 1,4-cyclohexane-dimethanol, a heavy diol obtained from bisphenol A, a bisphenol F, a bisphenol AF, an oxyalkylated bisphenol comprising at least one halogen on the aromatic nucleus/nuclei, an above product wherein the aromatic nucleus/nuclei is/are at least partially hydrogenated, a heavy novolac alcohol, or a cresol-novolac cresol.

Claim 7 (cancelled)

Claim 8 (cancelled)

Claim 9 (cancelled)

Claim 10 (previously presented) A well or pipe repair product according to claim 1, containing at least two different resins.

Claim 11 (cancelled)

Claim 12 (previously presented) A well or pipe repair product according to claim 1, containing at least one resin comprising in its chemical formula at least one multiple bond, wherein the at least one resin further comprises at least one monomer not forming part of the sub family of polymer vinyl esters, or of oligomers or pre-polymers of a bisphenol A derivative diacrylate oligomer, an epoxydimethacrylate oligomer diluted with trimethylolpropane diacrylate, or a diethoxylated dimethacrylate bisphenol A derivative.

Claim 13 (previously presented) A well or pipe repair product according to claim 1, wherein the resin polymerization reactions are initiated as a function of the service temperatures employed for the flexible preform by selecting at least one suitable initiator of an organic peroxide.

Claim 14 (previously presented) A well or pipe repair product according to claim 1, wherein the resin polymerization reactions are initiated as a function of the service temperatures employed for the flexible preform by at least one initiator comprising azoisobutyronitrile.

§Appl. No. 09/778,880
Amdt. dated September 3, 2003
Reply to Office Action of, June 3 2003

Claim 15 (previously presented) A well or pipe repair product according to claim 1, wherein the resin polymerization reactions are initiated as a function of the service temperatures employed for the flexible preform by at least one initiator of a sulfur or a potassium persulfate with molecular formula $K_2S_2O_8$.

Claim 16 (previously presented) A well or pipe repair product according to claim 13, wherein the resin polymerization reactions are initiated as a function of the service temperatures employed for the flexible preform by at least one initiator associated with at least one accelerator comprising a cobalt salt and/or a tertiary amine.

Claim 17 (previously presented) A well or pipe repair product according to claim 13, wherein the resin polymerization reactions are initiated as a function of the service temperatures employed for the flexible preform by at least one initiator associated with at least one polymerization inhibitor comprising a hydroquinone or tertiobutyl catechol.

Claim 18 (cancelled)

Claim 19 (previously presented) A well or pipe repair product according to claim 1, containing at least one resin with a residual latent period, after storage at 4°C or less

for a period of at least 60 days, of at least 8 hours at a temperature of about 40°C to about 80°C.

Claim 20 (previously presented) A well or pipe repair product according to claim 1, wherein the resin comprising at least one reactive multiple bond in its formula that can subsequently react with compounds comprising in their constitution at least one terminal reactive multiple bond or a reactive multiple bond located at one end or the other of the molecular chain and/or in a pendant group.

Claim 21 (previously presented) A well or pipe repair product according to claim 1, wherein the resin comprising at least one reactive multiple bond in its formula that can subsequently react with compounds comprising in their constitution at least one terminal reactive multiple bond or a reactive multiple bond located at one end or the other of the molecular chain and/or in a pendant group is selected from the group formed by resins that enable manual, mechanical or pressure or vacuum injection impregnation of fibrous supports comprising at least one glass fiber, basalt fiber, carbon fiber, ceramic fiber, natural fiber, synthetic fiber, or metal fiber constituting the reinforcement of said flexible preform.

Claim 22 (previously presented) A well or pipe repair product according to claim 1, wherein the resin comprising at least one reactive multiple bond in its formula that can subsequently react with compounds comprising in their constitution at least one terminal reactive multiple bond or a reactive multiple bond located at one end or the other of the molecular chain and/or in a pendant group is a non aggressive chemical resin.

Claim 23 (previously presented) A well or pipe repair product according to claim 1, wherein the resin comprising at least one reactive multiple bond in its formula that can subsequently react with compounds comprising in their constitution at least one terminal reactive multiple bond or a reactive multiple bond located at one end or the other of the molecular chain and/or in a pendant group is a resin with a polymerization temperature compatible with the heat resistance of the polymer, an elastic skin, and the at least one component constituting the preform walls.

Claim 24 (previously presented) A well or pipe repair product according to claim 23, wherein the resin polymerization temperature is 160°C or less.

Claim 25 (previously presented) A well or pipe repair product according to claim 1, wherein the resin comprising at least one reactive multiple bond in its formula that

can subsequently react with compounds comprising in their constitution at least one terminal reactive multiple bond or a reactive multiple bond located at one end or the other of the molecular chain and/or in a pendant group is a resin forming, after polymerization in combination with a fibrous support, a composite with a petroleum absorption of less than 3% by weight at a temperature of about 90°C.

Claim 26 (previously presented) A well or pipe repair product according to claim 1, wherein the resin comprising at least one reactive multiple bond in its formula that can subsequently react with compounds comprising in their constitution at least one terminal reactive multiple bond or a reactive multiple bond located at one end or the other of the molecular chain and/or in a pendant group is a resin forming a composite having a water absorption of less than 4% by weight at a temperature of about 90°C after polymerization in combination with a fibrous support.

Claim 27 (previously presented) A well or pipe repair product according to claim 1, further comprising at least one flow regulator.

Claim 28 (previously presented) A well or pipe repair product according to claim 27, wherein the flow regulator is a polystyrene, a polyvinylacetate, a polymethylmethacrylate or a polycaprolactame.

Claim 29 (currently amended) A well or pipe repair product according to claim 7, wherein the halogenated phthalic anhydride is comprising a radially deployable flexible preform to form, after deploying, a tubular structure that is curable by polymerization after positioning it in a well or in a line and moulds to the shape thereof after curing, comprising in its constitution at least one resin of an unsaturated polyester resin synthesized from at least one saturated or unsaturated polyol, and at least one saturated or unsaturated dibasic acid or anhydride, wherein the anhydride or the acid used to synthesize the unsaturated polyester is a maleic anhydride, a maleic acid, a fumaric acid, an itaconic acid, a citraconic acid, a cyclanic acid obtained from a hexahydrophthalic anhydride, an isophthalic acid, a terephthalic acid, a tetrahydrophthalic anhydride, a methylnadic anhydride, a hexahydrophthalic anhydride, tetrachlorophthalic anhydride, tetrabromophthalic anhydride, or hexachloro-endomethylene tetrahydrophthalic anhydride, comprising in its chemical formula at least one reactive multiple bond that has a dynamic viscosity of less than about 2500 mPa.s at a temperature of about 20°C to about 70°C, and is capable of subsequent reaction with compounds comprising in their constitution at least one terminal reactive multiple bond or a reactive multiple bond positioned at one end or the other of the

molecular chain and/or on a pendant group, wherein the preform contains
at least one resin with a residual latent period, after storage at 22°C for a
period of 20 days or more, of at least 3 hours at a temperature of about
10°C to about 90°C.

Claim 30 (cancelled)

Claim 31 (currently amended) A well or pipe repair product according to claim 1,
comprising a radially deployable flexible preform to form, after deploying, a tubular
structure that is curable by polymerization after positioning it in a well or in a line and
moulds to the shape thereof after curing, comprising in its constitution 100 pwhr of an
epoxydimethacrylate oligomer, comprising in its chemical formula at least one reactive
multiple bond that has a dynamic viscosity of less than about 2500 mPa.s at a
temperature of about 20°C to about 70°C, and is capable of subsequent reaction with
compounds comprising in their constitution at least one terminal reactive multiple bond
or a reactive multiple bond positioned at one end or the other of the molecular chain
and/or on a pendant group, 3 pwhr of a peroxide, and 1 pwhr of an inhibitor wherein the
preform contains at least one resin with a residual latent period, after storage at 22°C
for a period of 20 days or more, of at least 3 hours at a temperature of about 10°C to
about 90°C.

Claim 32 (previously presented) A well or pipe repair product according to claim 31, comprising 2 pwhr of an inhibitor.

Claim 33 (previously presented) A well or pipe repair product according to claim 31, comprising 3 pwhr of an inhibitor.

Claim 34 (currently amended) A well or pipe repair product comprising according to claim 1,

a radially deployable flexible preform to form, after deploying, a tubular structure that is curable by polymerization after positioning it in a well or in a line and moulds to the shape thereof after curing, comprising in its constitution 100 pwhr of a bisphenol A methacrylate, comprising in its chemical formula at least one reactive multiple bond that has a dynamic viscosity of less than about 2500 mPa.s at a temperature of about 20°C to about 70°C, and is capable of subsequent reaction with compounds comprising in their constitution at least one terminal reactive multiple bond or a reactive multiple bond positioned at one end or the other of the molecular chain and/or on a pendant group,
and 3 pwhr of an inhibitor wherein the preform contains at least one resin with a residual latent period, after storage at 22°C for a period of 20 days or more, of at least 3 hours at a temperature of about 10°C to about 90°C.

§Appl. No. 09/778,880
Amdt. dated September 3, 2003
Reply to Office Action of, June 3 2003

Claim 35 (cancelled)

Claim 36 (cancelled)

Claim 37 (cancelled)

Claim 38 (cancelled)